



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,226	09/17/2003	Bruce B. Roesner	16165-005001	8463

20985 7590 09/06/2005

FISH & RICHARDSON, PC
12390 EL CAMINO REAL
SAN DIEGO, CA 92130-2081

EXAMINER

AU, SCOTT D

ART UNIT	PAPER NUMBER
----------	--------------

2635

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,226

Applicant(s)

ROESNER, BRUCE B.

Examiner

Scott Au

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 13-19 and 24-27 is/are rejected.
- 7) ☒ Claim(s) 6-12, 20-23 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This communication is in response to applicant's response to an Amendment, which is filed July 13, 2005.

An amendment to the claims 1-28 have been entered and made of record in the Application of Rosener for a "Deep sleep in an RFID tag" filed September 17, 2003.

Claims 1-28 are pending.

Response to Arguments

Applicant's amendments and argument to the rejected claims are insufficient to distinguish the claimed invention from the cited prior arts to overcome the rejection of said claims under 35 U.S.C 102(a) and 35 U.S.C 103(a) as discussed below.

Applicant's amendment and argument with respected to the pending claims 1-28, filed on July 13, 2005, have been fully considered but they are not persuasive for at least the following reasons.

On page 11, paragraph 5, Applicant's argument with respect to the invention of Kruest that "providing a following state entered upon conclusion of the non-responsive state, wherein communications initiate from the following state" according to claim 1, is not persuasive.

Kruest discloses the antenna of an RFID tag or label is disconnected from the balance of the RFID chip by means of a series switch activated in response to a logic

Art Unit: 2635

command, CLOAK, generated by the RFID chip. After a time delay of 2-5 seconds of non-responsive state, the tag is in non-cloak state (col. 3 lines 1-35).

On page 12, paragraph 2, Applicant's argument with respect to the invention of Kruest that "the following state comprises an initial communication state from a plurality of communication states, wherein the plurality of communication states allow response to a sequences of associated commands when receipt of command sequence begins in the initial communication state" according to claim 2, is persuasive. Therefore the examiner has withdrawn the rejections.

On page 13, paragraph 2, Applicant's argument with respect to the invention of Kruest that "receiving commands in a command structure", "entering a deep sleep state", and the deep sleep state comprising a reset of the command structure" of claims 15 and 27, is not persuasive.

Kruest discloses the method of cloaking an RFID tag in an RF field comprising the steps of powering the RFID tag in the RF field and generating a logic signal, CLOAK, on a predetermined condition as determined by the RFID tag (col. 3 lines 49-55). Once, in the cloak state the tag logic circuits on the tag then enter a state that prevents further responses by the tag until either a second coded signal reactivates a response mode or until the tag is removed from and then re-enters the powering RF field. The powering off and on cycle has the effect of resetting the logic circuit in the RFID tag allowing it to respond anew (col. 2 lines 41-55).

On page 14, paragraph 2, Applicant's argument with respect to the invention of Kruest in view of Wood that "there is no motivation for combined" according to claims 5, 14 and 17-18, is not persuasive.

Kruest suggests the interrogator communicates with RFID tags through the RF field and the tag in the cloak state when responses to a logic command in an identification system (col. 3 lines 1-13).

In the same field of endeavor of RFID devices, Wood, Jr. discloses in U.S. patent application Ser. No. 08/092,147 includes two receivers, a low power receiver for detecting a wake up signal from an interrogator, and a high power receiver for receiving commands from an interrogator. On the other hand, the integrated circuit 16 of the illustrated embodiment employs a single receiver for both wake up and receiving commands from an interrogator (col. 8 lines 13-25). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to include reception of wake command from the interrogator of Wood, Jr. in the communication system of Kruest with the motivation for doing so would allow the passive tag to wake up and communicate with the interrogator.

On page 14, paragraph 2, Applicant's argument with respect to the invention of Kruest in view of Alicot that "there is no motivation for combined" according to claim 13, is not persuasive.

Kruest suggests the interrogator communicates with RFID tags and labels through the RF field and the tag in the cloak state when responses to a logic command (col. 3 lines 1-13).

In the same field of endeavor of RFID system, Alicot et al. suggest deactivating the RFID tag attached to an article before they are removed for the retail environment (col. 1 lines 12-25). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to include high frequency band in RFID system of Alicot et al. in the RFID system of Kruest with the motivation for doing so would allow the tags easily shielded or detuned by proximity to various materials and the human body.

On page 15, paragraph 2, Applicant's argument with respect to the invention of Kruest in view of Shafer that "at least one sequence of associated commands used to identify an RFID tag", "the control logic resets tag communications and initiates a non responsive state in response to at least one event", and " and the control logic responds to a wake command but ignores other commands in the command sequence while the tag is in the non-responsive state" according to claim 19, is not persuasive.

Kruest suggests the tags received the interrogation signal and go through the identification process (col. 4 lines 55-60). Therefore, Kruest teaches "at least one sequence of associated commands used to identify an RFID tag".

Kruest suggests in the back ground of the invention, that the logic circuits on the

Art Unit: 2635

tag then enter a state that prevents further responses by the tag until either a second coded signal reactivates a response mode or until the tag is removed from and then re-enters the powering RF field. The powering off and on cycle has the effect of resetting the logic circuit in the RFID tag allowing it to respond anew (col. 2 lines 50-55).

Therefore, Kruest teaches "the control logic resets tag communications and initiates a non responsive state in response to at least one event".

Kruest suggests the wake up command occurs when the tag goes through a cloak delay time of 2-5 seconds (col. 3 lines 26-34) and since the tag is in the non-responsive state. Therefore, the tag ignores and not responses to other commands.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,3-4, 14-15 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Kruest (US# 5,963,144).

Referring to claim 1, Kruest discloses a passive radio frequency identification tag (i.e. see Figure 1) comprising: an antenna (16) (i.e. antenna); a radio frequency interface (108) (i.e. analog section) coupled with the antenna (16) (i.e. antenna) (col. 5

Art Unit: 2635

lines 1-20); and control logic (102) (i.e. tag core) that initiates a deep sleep state in response to an event, the deep sleep state (i.e. disconnected and noninterfering with RF field) comprising a non-responsive state that is independent of supplied power, and the control logic providing a following state entered upon conclusion of the non-responsive state, wherein communications initiate from the following state (col. 2 line 62 to col. 3 line 15).

Referring to claim 15, Kruest discloses a method comprising: receiving power in a passive radio frequency identification tag (i.e. see Figure 1); receiving commands in a command structure in the passive radio frequency identification tag (col. 2 lines 62-67); and entering a deep sleep state in the passive radio frequency identification tag, the deep sleep state comprising a reset of the command structure and a non-responsive state that is independent of supplied power (col. 3 lines 1-15).

Referring to claim 27, Kruest discloses a passive radio frequency identification tag (i.e. see Figure 1) comprising: means (i.e. series of switch) for receiving power and commands in a command structure (col. 2 lines 62-67); and means (i.e. RC circuit) for entering a deep sleep state comprising a reset of the command structure and a non-responsive state that is independent of supplied power (col. 2 lines 53-55 and col. 2 line 63 to col. 3 line 15).

Art Unit: 2635

Referring to claim 3, Kruest discloses the passive radio frequency identification tag of claim 2, wherein the command sequence comprises at least a portion of a binary search protocol (col. 5 lines 62-65) (i.e. digital signal consist of binary code).

Referring to claims 4 and 16, Kruest discloses the passive radio frequency identification tag and method of claims 2 and 15, wherein the deep sleep state initiates in response to an event comprising receipt of a deep sleep command (col. 2 line 63 to col. 3 line 15).

Referring to claim 14, Kruest discloses the passive radio frequency identification tag of claim 1, further comprising a non-volatile memory (col. 4 lines 64-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2-4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruest (US# 5,963,144) as applied to claim 1 above and further in view of Snodgrass et al. (US# 5,583,850).

Referring to claim 1, Kruest discloses the passive radio frequency identification tag of claim 1. However, Kruest did not explicitly disclose wherein the following state comprises an initial communication state from a plurality of communication states, wherein the plurality of communication states allow response to a sequence of associated commands when receipt of the command sequence begins in the initial communication state.

In the same field of endeavor of RFID system, Snodgrass et al. suggest wherein the following state comprises an initial communication state (310) (i.e. idle state) from a plurality of communication states (i.e. see Figures 11, showing a plurality of states with the initial idle state), wherein the plurality of communication states allow response to a sequence of associated commands when receipt of the command sequence begins in the initial communication state (col. 15 line 1 to col. 16 line 23).

One ordinary skill in the art understands that plurality of communication states of RFID system of Snodgrass et al. is desirable in the RFID system of Kruest because Kruest suggests RFID device is used to be tracked by the interrogator for identification (col. 2 lines 41-55) and Snodgrass et al. suggest RFID devices are used in such an application, as well as in applications where inventory, personnel, animals, packages, samples, mobile stations, and objects must be identified and tracked, there remains a need for communication apparatus and protocol having minimal complexity in circuitry, firmware, and software so that stations can be conveniently equipped and used at practical cost. Whether a communication system is practical depends largely on the system designer's choice of a communication protocol.

Referring to claim 3, Kruest in view of Snodgrass et al. disclose the passive radio frequency identification tag of claim 2, Kruest discloses wherein the command sequence comprises at least a portion of a binary search protocol (col. 5 lines 62-65) (i.e. digital signal consist of binary code).

Referring to claims 4 and 16, Kruest in view of Snodgrass et al. disclose the passive radio frequency identification tag and method of claims 2 and 15, Kruest et al. discloses wherein the deep sleep state initiates in response to an event comprising receipt of a deep sleep command (col. 2 line 63 to col. 3 line 15).

Claims 5 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruest (US# 5,963,144) in view of Snodgrass et al. (US# 5,583,850) as applied to claims 1-2 and 15 above and further in view of Wood, Jr. (US# 6,104,333).

Referring to claims 5 and 17, Kruest in view of Snodgrass et al. disclose the passive radio frequency identification tag and method of claim 4 and 15, Kruest discloses wherein the non-responsive state concludes in response to a first occurring event from event comprising an internal cessation of the non-responsive state (col. 6 lines 53-64). However, Kruest did not explicitly disclose wherein the non-responsive state concludes in response to a first occurring event from event comprising receipt of wake command.

Art Unit: 2635

In the same field of endeavor of RFID devices, Wood, Jr. discloses wherein the non-responsive state concludes in response to a first occurring event from event comprising receipt of wake command (col. 8 lines 14-25) from the interrogator.

One ordinary skill in the art understands that reception of wake command from the interrogator of Wood, Jr. is desirable in the RFID communication system of Kruest in view of Snodgrass et al. because Kruest suggests the interrogator communicates with RFID tags through the RF field and the tag in the cloak state when responses to a logic command (col. 3 lines 1-13) and Wood, Jr. suggests tag is waken by the interrogator's signal (col. 8 lines 14-25). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to include reception of wake command from the interrogator of Wood, Jr. in the communication system of Kruest in view of Snodgrass et al. with the motivation for doing so would allow the tag to communicate with the interrogator.

Referring to claim 18, Kruest in view of Snodgrass et al. and Wood, Jr. disclose the method of claim 17, Kruest discloses wherein the internal cessation of the non-responsive state comprises a voltage decay of a charged RC circuit (col. 6 lines 53-64).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kruest (US# 5,963,144) as applied to claim 1 above and further in view of Alicot et al. (US# 5,990,794)

Referring to claim 13, Kruest discloses the passive radio frequency identification tag of claim 1, Kruest discloses wherein the antenna (16) (i.e. antenna) comprises a near-field coupling element (108) (i.e. see Figure 1). However, Kruest did not explicitly disclose wherein the tag operates in a high frequency band.

In the same field of endeavor of RFID devices, Alicot et al. disclose wherein the antenna comprises a near-field coupling element configured to operate in a high frequency band (col. 2 lines 1-15) in a retail environment.

One ordinary skill in the art understands that high frequency band in the RFID system of Alicot et al. is desirable in the RFID system of Kruest because Kruest suggests the interrogator communicates with RFID tags through the RF field and the tag in the cloak state when responses to a logic command (col. 3 lines 1-13) and Alicot et al. suggest deactivating the RFID tag attached to an article before they are removed for the retail environment (col. 1 lines 12-25). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to include high frequency band in RFID system of Alicot et al. in the RFID system of Kruest with the motivation for doing so would allow the tags easily shielded or detuned by proximity to various materials and the human body.

Claims 19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruest (US# 5,963,144) in view of Shafer (US# 5,942,978).

Referring to claim 19, Kruest discloses a system comprising: a radio frequency identification (RFID) tag reader (i.e. interrogator) that sends commands including at least one sequence of associated commands used to identify an RFID tag (col. 4 lines 55-58); and multiple passive RFID tags, each tag comprising a radio frequency sub-system (108) (i.e. analog section) and control logic (102) (i.e. tag core) coupled with the radio frequency sub-system (col. 5 lines 60-65; see Figure 1), wherein the control logic resets tag communications and initiates a non-responsive state in response to at least one event (col. 2 lines 53-55), the non-responsive state being independent of supplied power, and the control logic responds to a wake command but ignores other commands in the command sequence while the tag is in the non-responsive state, and the wake command response concludes the non-responsive state (col. 2 line 62 to col. 3 line 15).

However, Kruest did not explicitly disclose each tag being attached to an article.

In the same field of endeavor of RFID devices, Shafer discloses each RFID tag being attached to an article (col. 1 lines 33-36 and col. 2 lines 9-14 and 31-39) and detaching from the article of the merchandise.

One ordinary skill in the art understands that attachable RFID tags of Shafer is desirable in the RFID tags system of Kruest because Kruest suggests passive RFID tags communicate with the RF field of the interrogator (col. 3 lines 1-15) and it obvious attachable RFID tags of Shafer in the communication system of Kruest in order to identify the specific article of merchandise the tag attached to and prevent unauthorized removal of the tag from the item (col. 1 lines 34-40).

Referring to claim 24, Kruest in view of Shafer disclose the system of claim 19, Kruest discloses wherein the non-responsive state also concludes upon internal cessation (col. 6 lines 53-64).

Claims 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruest (US# 5,963,144) in view of Shafer (US# 5,942,978) as applied to claim 19 above and further in view of Atkins (US# 6,661,336).

Referring to claim 25, Kruest in view of Shafer disclose the system of claim 24 above, Kruest discloses wherein each tag comprises an antenna (16) (i.e. antenna) and a circuit that comprise the radio frequency sub-system (108) (i.e. analog section) and the control logic (102) (i.e. tag core), and the internal cessation of the non-responsive state comprises a voltage decay of a charged RC circuit in the IC (col. 6 lines 53-64; see Figure 1).

However, Kruest in view of Shafer did not explicitly disclose the tag comprises of an integrated circuit.

In the same field of endeavor of RFID system, Atkins et al. disclose wherein each tag (i.e. see Figure 2) comprises an antenna(s) (4,5) and an integrated circuit that comprise the radio frequency sub-system (9) (i.e. modulator) and the control logic (7) (i.e. logic circuit) (col. 3 line 43-45 and col. 5 lines 40-55) communicating with reader (10).

One ordinary skill in the art understands that integrated circuit (IC) used in a tag of Atkins et al. is desirable in the RFID tag of Kruest in view of Shafer because Kruest suggests passive RFID tags communicate with the RF field of the interrogator (col. 3 lines 1-15), Shafer suggests attachable RFID tags to articles or merchandise items (col. 1 lines 34-40) and Atkins et al. also suggest tracking of articles with attachable RFID tags (col. 5 lines 1-9). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to include the IC tags system of Atkins et al. in the communication system of Kruest in view of Shafer with the motivation for doing so would allow the flexibility of identifying the plurality of tags.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kruest (US# 5,963,144) in view of Shafer (US# 5,942,978) and Atkins et al. (US# 6,661,336) as applied to claim 25 above and further in view of Alicot et al. (US# 5,990,794).

Referring to claim 26, Kruest in view of Shafer and Atkins disclose the system of claim 25, Kruest discloses wherein the antenna (16) (i.e. antenna) comprises a near-field coupling element (108) (i.e. see Figure 1). However, Kruest in view of Shafer and Atkins et al. did not explicitly disclose wherein the tag operates in a high frequency band.

In the same field of endeavor of RFID devices, Alicot et al. disclose wherein the antenna comprises a near-field coupling element configured to operate in a high frequency band (col. 2 lines 1-15) in a retail environment.

One ordinary skill in the art understands that high frequency band in the RFID system of Alicot et al. is desirable in the RFID system of Kruest in view of Shafer and Atkins et al. because Kruest suggests the interrogator communicates with RFID tags through the RF field and the tag in the cloak state when responses to a logic command (col. 3 lines 1-13) and Alicot et al. suggest deactivating the RFID tag attached to an article before they are removed for the retail environment (col. 1 lines 12-25). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to include high frequency band in RFID system of Alicot et al. in the RFID system of Kruest in view of Shafer and Atkins et al. with the motivation for doing so would allow the tags easily shielded or detuned by proximity to various materials and the human body.

Claim Objections

Claims 6-12, 20-23 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Referring to claim 6, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that where the control logic further provides a sleep state that is entered upon power up and an isolate state that is entered upon receipt of an isolate command, the sleep and isolate states being dependent upon supplied power, wherein the sleep, isolate and non-responsive states

Art Unit: 2635

conclude upon receipt of a full wake command, and the sleep and isolate states, but not the non-responsive state, conclude upon receipt of a partial wake command.

Referring to claim 7, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that where the control logic further provides a sleep state that is entered upon power up and an isolate state that is entered upon receipt of an isolate command, the sleep and isolate states being dependent upon supplied power, wherein the sleep and non-responsive states, but not the isolate state, conclude upon receipt of a full wake command, and the sleep and isolate states, but not the non-responsive state, conclude upon receipt of a partial wake command.

Referring to claim 8, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that where the control logic further provides a sleep state that is entered upon power up and an isolate state that is entered upon receipt of an isolate command, the sleep and isolate states being dependent upon supplied power, wherein the sleep and non-responsive states, but not the isolate state, conclude upon receipt of a full wake command, and the sleep state, but not the isolate and non-responsive states, conclude upon receipt of a partial wake command.

Referring to claim 9, the following is a statement of reasons for the indication of

Art Unit: 2635

allowable subject matter: the prior art fail to suggest limitations that where the control logic further provides a sleep state that is entered upon power up and an isolate state that is entered upon receipt of an isolate command, the sleep and isolate states being dependent upon supplied power, wherein the sleep, isolate and non-responsive states conclude upon receipt of a full wake command, and the sleep state, but not the isolate and non-responsive states, conclude upon receipt of a partial wake command.

Referring to claim 10, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that where the radio frequency interface comprises an analog portion of a complementary metal oxide semiconductor (CMOS) integrated circuit (IC), the control logic comprises a digital portion of the CMOS IC, and the internal cessation of the non-responsive state comprises a voltage decay of a charged RC circuit in the CMOS IC.

Referring to claim 11, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that wherein the non-responsive state concludes upon internal cessation, the following state comprises an isolate state, and the deep sleep and isolate states conclude upon receipt of a full wake command.

Referring to claim 12, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that wherein the

Art Unit: 2635

non-responsive state concludes upon internal cessation, the following state comprises the non-responsive state reinitiated, and the deep sleep state concludes upon receipt of a full wake command.

Referring to claim 20, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that wherein the control logic further provides a sleep state that is entered upon power up and an isolate state that is entered upon receipt of an isolate command, the sleep and isolate states being dependent upon supplied power, wherein the sleep, isolate and non-responsive states conclude upon receipt of a full wake command, and the sleep and isolate states, but not the non-responsive state, conclude upon receipt of a partial wake command.

Referring to claim 21, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that wherein the control logic further provides a sleep state that is entered upon power up and an isolate state that is entered upon receipt of an isolate command, the sleep and isolate states being dependent upon supplied power, wherein the sleep and non-responsive states, but not the isolate state, conclude upon receipt of a full wake command, and the sleep and isolate states, but not the non-responsive state, conclude upon receipt of a partial wake command.

Referring to claim 22, the following is a statement of reasons for the indication of

Art Unit: 2635

allowable subject matter: the prior art fail to suggest limitations that wherein the control logic further provides a sleep state that is entered upon power up and an isolate state that is entered upon receipt of an isolate command, the sleep and isolate states being dependent upon supplied power, wherein the sleep and non-responsive states, but not the isolate state, conclude upon receipt of a full wake command, and the sleep state, but not the isolate and non-responsive states, conclude upon receipt of a partial wake command.

Referring to claim 23, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that wherein the control logic further provides a sleep state that is entered upon power up and an isolate state that is entered upon receipt of an isolate command, the sleep and isolate states being dependent upon supplied power, wherein the sleep, isolate and non-responsive states conclude upon receipt of a full wake command, and the sleep state, but not the isolate and non-responsive states, conclude upon receipt of a partial wake command.

Referring to claim 28, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations that wherein the means for entering the deep sleep state comprise: means for preventing premature triggering of the deep sleep state; and means for maintaining the deep sleep state when power is reapplied after loss of the received power.

Conclusion

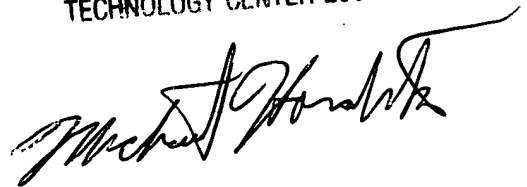
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Au whose telephone number is (571) 272-3063. The examiner can normally be reached on Mon-Fri, 8:30AM – 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached at (571) 272-3068. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-3906.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-3900.

Scott Au

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

A handwritten signature in black ink, appearing to read "Michael Horabik", is written over the printed name and title.